

REMARKS/ARGUMENTS

Reconsideration of the rejections set forth in the Office Action dated May 30, 2003 is respectfully requested. Claims 2 and 11 have been canceled. Claim 19 has been added. As such, claims 1, 3-10, and 12-19 are currently pending, and claims 1, 3-10, and 12-18 have been rejected.

Independent claim 1 has been amended for clarity and to include the limitations of originally filed claim 2. Independent claim 10 has been amended for clarity and to include the limitations of originally filed claim 11. Claims 6 and 15 have been amended to be rewritten in independent form. Claims 9 and 18 have been amended for clarity by replacing the term "unit" with the term "system," which provides proper antecedent basis.

New claim 19 recites the limitations of claim 1 and originally filed claim 2, and also recites that a connection map is maintained. The connection map is updated to indicate a change in status of the flexible cross-connect system when any one of a plurality of cards or communications links is non-operational. Support for this new limitation may be found in the Specification, as for example on page 5, at lines 10-22.

It is not clear to the Applicant how the Examiner intended to reject claims 6, 9, 15, and 18 in the Office Action dated May 30, 2003. With regards to claims 6 and 15, the Examiner has stated that claims 6 and 15 are rejected under 35 U.S.C. § 102(b) as being anticipated by Demiray et al. (U.S. Patent No. 5,740,157). However, the Applicant is unable to identify a specific rejection pertaining to the limitations recited in claim 6 and 15. Claims 6 and 15 each recite a limitation of detecting and reporting when any card or communications link has a change in operational status. It does not appear to the Applicant that Demiray et al. teach of such a limitation, *e.g.*, Demiray et al. do not teach of detecting and reporting when any card or communications link has a change in operational status. The Applicant respectfully requests that the Examiner elaborate on his rejections of claims 6 and 15 so that the Applicant may directly address the rejections of these claims.

On page 2 of the Office Action dated May 30, 2003, the Examiner indicates that claims 9 and 18 are rejected under 35 U.S.C. § 102(b) as being anticipated by Demiray (U.S. Patent No. 5,740,157). However, on page 5 of the Office Action dated May 30, 2003, the Examiner indicates that claims 9 and 18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Demiray in view of Bowdon (U.S. Patent No. 5,343,194). The Applicant will address the rejections of claims 9 and 18 as being under 35 U.S.C. § 103(a), as the rejections under 35 U.S.C. § 103(a) are laid out fairly clearly in the Office Action dated May 30, 2003, while the rejections under 35 U.S.C. § 102(b) are not clear.

Rejections under 35 U.S.C. § 102 and 35 U.S.C. § 103

The Examiner has rejected claims 1-3, 6, 9-12, 15, and 18 under 35 U.S.C. § 102(b) as being anticipated by Demiray et al. (U.S. Patent No. 5,740,157). The Examiner has rejected claims 4 and 13 under 35 U.S.C. § 103(a) as being unpatentable over Demiray et al. (U.S. Patent No. 5,740,157), and the Examiner has rejected claims 5 and 14 under 35 U.S.C. § 103(a) as being unpatentable over Demiray et al. (U.S. Patent No. 5,740,157) in view of Harris (U.S. Patent No. 5,771,274). Claims 7, 8, 16, and 17 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Demiray et al. (U.S. Patent No. 5,740,157) in view of Ise et al. (U.S. Patent No. 5,888,586).

As amended, independent claim 1 requires that a method for controlling the operation of a flexible cross-connect system includes monitoring the operational status of cards and communications links in the system, determining when the operational status of any of the cards or links indicates that the card or link is non-operational, autonomously switching from the non-operational card or link to an associated redundant card or link, and determining when the non-operational active card or link requires maintenance. If it is determined that the non-operational active card or link requires maintenance, the method also includes reporting that maintenance is required.

The Examiner has argued that Demiray et al. teach the limitations of amended claim 1. The Applicant submits that Demiray et al. do not teach of determining when a non-operational active card or a non-operational active communications link requires maintenance, or of

reporting that maintenance is required for the non-operational active card or the non-operational communications link. Although the Examiner has argued, in the Office Action dated May 30, 2003, that Demiray et al. teach that a system "has mechanisms for keeping in a long term state when a working line failure occurs until operation of the working line is restored and a revert to working line is received from the controller." The Examiner further states that "in order to perform this operation, this system must be able to notify when the system was in requirement of maintenance in the first place." The Applicants respectfully disagree with the Examiner's assertions.

In order for a line to be kept in a long term state until operation of a working line is restored, it is not necessary for a system to notify when the system was in requirement of maintenance. For example, the working line may be restored during routine maintenance when each working line is processed, and only those working lines which appear to need maintenance are restored. That is, a system may periodically study all working lines and determine which working lines need maintenance. Hence, the system does not have to notify when the system is in requirement of maintenance, as alleged by the Examiner, since maintenance may be periodically scheduled and all working lines may be studied to identify those requiring maintenance. It is respectfully submitted that since Demiray et al. do not teach of determining when maintenance is required or of reporting that maintenance is required, claim 1 is allowable over Demiray et al. for at least this reason.

Claims 3-5 and 9 each depend either directly or indirectly from amended independent claim 1 and are, therefore, each believed to be allowable over the art of record for at least the reasons set forth above with respect to claim 1. Each of these dependent claims recites additional limitations which, when considered in light of claim 1, are believed to further distinguish the claimed invention over the art of record. By way of example, dependent claim 4 requires that a card is flagged with a non-operational status if the card is receiving a software upgrade. Flagging a card with a non-operational status if the card is receiving a software upgrade prevents the card from being used when it is in the process of receiving the software upgrade. The Examiner has admitted that Demiray et al. do not disclose flagging a card as non-operational when it is receiving a software update, but argues that flagging a card would have been obvious in the case

of a software update. It is respectfully submitted that flagging a card would not have been obvious in the case of a software update, since a card may continue to operate while software is being updated. As Demiray et al. do not teach of or suggest that a card is non-operational during a software update and, by the Examiner's admission, does not teach of flagging a card as non-operational when it is receiving a software update, claim 4 is believed to be allowable over the art of record for at least this reason as well.

Dependent claim 9 requires that a flexible cross-connect system is a first node in a network, and that the method also includes maintaining a connection map for the network. The Examiner has argued that a combination of Demiray et al. and Bowdon teaches the limitations of claim 9. It is respectfully submitted that while Bowdon teaches of a matrix which represents a connection map of an output stage (Bowdon, column 13, lines 19-32, neither Demiray et al. nor Bowdon, alone or in combination, teaches of a connection map for a network. Instead, Bowdon teaches of a connection map for an output stage. As such, claim 9 is further believed to be allowable over the art of record for this additional reason.

As amended, independent claim 10 recites similar limitations as recited in claim 1, and is therefore believed to be allowable over the art of record for at least the reasons set forth above with respect to claim 1. Claims 12-14 and 18 each depend either directly or indirectly from amended independent claim 10 and are each believed to be allowable over the art of record for at least the reasons set forth above.

As stated above, the Applicant is unable to identify a specific rejection pertaining to the limitations recited in claim 6 and 15. Claims 6 and 15 each recite a limitation of detecting and reporting when any card or communications link has a change in operational status. It is respectfully submitted that Demiray et al. do not appear to teach of such a limitation. While Demiray et al. teach of reporting when a card in an A side or a B side is faulty (Demiray et al., column 3, lines 20-25), Demiray et al. do not appear to teach of detecting or reporting when any card in a system (not just cards on an A side or a B side) are faulty, and also do not appear to teach of detecting and reporting a change in operational status. For instance, Demiray et al. do

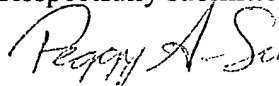
not appear to teach of detecting and reporting when a faulty card is no longer faulty. As such, claims 6 and 15 are each believed to be allowable over the art of record for at least these reasons.

Claims 7 and 8 depend from independent claim 6, and claims 16 and 17 depend from independent claim 15, and are each believed to be allowable over the art of record for at least the reasons set forth above with respect to claims 6 and 15. Each of these dependent claims recites additional limitations which, when considered in light of claims 6 and 15, as appropriate, are believed to further distinguish the claimed invention over the art of record.

In view of the above, the Applicants believe that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

If any fees are due in connection with the filing of this amendment, the Commissioner is authorized to charge such fees to Deposit Account 50-1652 (Order No. CISC794).

Respectfully submitted,



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